

AMENDMENTS TO THE CLAIMS

1. (Withdrawn) A polynucleotide having a nucleotide sequence represented by Sequence ID No: 1.
2. (Withdrawn) A polynucleotide comprising the nucleotide sequence from 211 to 1935 position represented by sequence ID No: 1.
3. (Withdrawn) A protein having an amino acid sequence encoded by the polynucleotide according to claim 2.
4. (Withdrawn) A recombinant vector containing the polynucleotide according to claim 1.
5. (Withdrawn) A recombinant vector containing the polynucleotide according to claim 2.
6. (Currently Amended) A transgenic medaka fish comprising a polynucleotide having a nucleotide sequence of SEQ ID No: 1 encoding a medaka estrogen receptor, wherein said polynucleotide contains is operably linked to a promoter sequence, which that is capable of expressing sufficient amounts of a protein the medaka estrogen receptor encoded by said polynucleotide, and wherein said transgenic medaka fish produces increased level of the estrogen receptor as compared to normal wild-type medaka fish and produces observable thrombi when cultured in the presence of estrogen to produce one or more thrombi.
7. (Currently Amended) A transgenic medaka fish comprising a polynucleotide having a nucleotide sequence corresponding to nucleotides 211 to 1935 of SEQ ID No: 1 encoding a medaka estrogen receptor, wherein said polynucleotide is operably linked to a promoter sequence, which that is capable of expressing sufficient amounts of a protein the medaka estrogen receptor encoded by said polynucleotide, and wherein said transgenic medaka fish produces increased level of the estrogen receptor as compared to normal wild-

type medaka fish and produces observable thrombi when cultured in the presence of estrogen to produce one or more thrombi.

8. (Previously Presented) A method of producing transgenic medaka fish having one or more thrombi, comprising raising the transgenic medaka fish of claim 6 in the presence of estrogen.

9. (Previously Presented) A method of producing transgenic medaka fish having one or more thrombi, comprising raising the transgenic medaka fish of claim 7 in the presence of estrogen.

10. (Previously Presented) A transgenic medaka fish having one or more thrombi, which is obtained by raising the transgenic medaka fish of claim 6 in the presence of estrogen.

11. (Previously Presented) A transgenic medaka fish having one or more thrombi, which is obtained by raising the transgenic medaka fish of claim 7 in the presence of estrogen.

12. (Previously Presented) A method of testing an estrogen-like activity in test water, comprising:

raising the transgenic medaka fish of claim 6 in test water; and
observing whether or not one or more thrombi are formed in the medaka fish after said raising.

13. (Previously Presented) A method of testing an estrogen-like activity in test water, comprising:

raising the transgenic medaka fish of claim 7 in test water; and
observing whether or not one or more thrombi are formed in the medaka fish after said raising.

14. (Previously Presented) The method according to claim 12, wherein the test water is water taken from the environment.

15. (Previously Presented) The method according to claim 13, wherein the test water is water taken from the environment.

16. (Original) The method according to claim 12, wherein the test water is water having a test substance added.

17. (Original) The method according to claim 13, wherein the test water is water having a test substance added.

18. (Currently Amended) A transgenic medaka fish comprising a polynucleotide having a nucleotide sequence corresponding to nucleotides 211 to 1935 of SEQ ID No: 1 encoding a medaka estrogen receptor, wherein one or more nucleotides are added, deleted, or mutated and the enzyme protein encoded thereby has estrogen receptor activity, and

wherein said polynucleotide is operably linked to a promoter sequence, which that is capable of expressing sufficient amounts of a protein the medaka estrogen receptor encoded by said polynucleotide to produce one or more thrombi, and

wherein said transgenic medaka fish produces increased level of the estrogen receptor as compared to normal wild-type medaka fish and produces observable thrombi when cultured in the presence of estrogen.

19. (Previously Presented) A method of producing transgenic medaka fish having one or more thrombi, comprising raising the transgenic medaka fish of claim 18 in the presence of estrogen.

20. (Previously Presented) A transgenic medaka fish having one or more thrombi, which is obtained by raising the transgenic medaka fish of claim 18 in the presence of estrogen.

21. (Previously Presented) A method of testing an estrogen-like activity in test water, comprising:

raising the transgenic medaka fish of claim 18 in test water; and
observing whether or not one or more thrombi are formed in the medaka fish after said
raising.

22. (Previously Presented) The method according to claim 21, wherein the test water
is water taken from the environment.

23. (Previously Presented) The method according to claim 21, wherein the test water
is water having a test substance added.

24. (Currently Amended) A transgenic medaka fish comprising a polynucleotide
encoding a medaka estrogen receptor having an amino acid sequence of SEQ ID No: 2,
wherein said polynucleotide contains is operably linked to a promoter sequence, which his
that is capable of expressing sufficient amounts of a protein the medaka estrogen receptor
encoded by said polynucleotide, and wherein said transgenic medaka fish produces increased
level of the estrogen receptor as compared to normal wild-type medaka fish and produces
observable thrombi when cultured in the presence of estrogen to produce one or more
thrombi.

25. (Previously Presented) A method of producing transgenic medaka fish having one
or more thrombi, comprising raising the transgenic medaka fish of claim 24 in the presence of
estrogen.

26. (Previously Presented) A transgenic medaka fish having one or more thrombi,
which is obtained by raising the transgenic medaka fish of claim 24 in the presence of
estrogen.

27. (Previously Presented) A method of testing an estrogen-like activity in test water,
comprising:

raising the transgenic medaka fish of claim 24 in test water; and

observing whether or not one or more thrombi are formed in the medaka fish after said raising.

28. (Previously Presented) The method according to claim 27, wherein the test water is water taken from the environment.

29. (Previously Presented) The method according to claim 27, wherein the test water is water having a test substance added.

30. (New) The transgenic medaka fish according to claim 6, wherein said promoter is the medaka beta-actin promoter.

31. (New) The transgenic medaka fish according to claim 7, wherein said promoter is the medaka beta-actin promoter.

32. (New) The transgenic medaka fish according to claim 18, wherein said promoter is the medaka beta-actin promoter.

33. (New) The transgenic medaka fish according to claim 24, wherein said promoter is the medaka beta-actin promoter.

SUPPORT FOR THE AMENDMENT

Claims 6, 7, 18, and 24 have been amended.

Claims 30-33 have been added.

The amendment of Claims 6, 7, 18, and 24 and new Claims 30-33 are supported by Claims 1-17 as originally filed, as well as the specification at pages 2-25.

No new matter is believed to have been entered by the present amendment.